

Remarks

Reconsideration of this Application is respectfully requested.

Claims 59, 66-71, 77, 83-88, and 94-100 are pending in the application, with 59, 77, and 94 being the independent claims.

Based on the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Rejections under 35 U.S.C. § 102 and § 103

On Page 2 of the Office Action, claims 59, 66, 77, 83 and 94 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,385,253 to Swisher (hereinafter Swisher). Applicants respectfully traverse the rejection.

Differences exist between Swisher and the claimed invention. For example, claim 59 recites the following:

a converter configured to convert a differential input signal from a twisted pair telephone line to a single-ended input signal for the receive channel, and convert a single-ended output signal from the transmit channel to a differential output signal for transmission on the twisted pair telephone line;

Swisher does not teach or suggest this feature of claim 1.

In FIG. 3 Swisher shows a block diagram for an Analog Front End (AFE) that interfaces with a twisted wire pair. During signal reception a signal passes through a POTS separation high pass filter (HPF) 345, line protection 343, line isolation transformer 340, diplexer 330, line receiver 317, band pass filter (BPF) 315, amplifier 313, group delay equalizer (GDE) 311 and finally to the analog to digital converter 310. During signal transmission, the process is essentially reversed with a signal coming from the digital to analog converter 300 being passed through buffer 301, GDE 311, transmit

low pass filter (LPF), line driver 305, diplexer 330, line isolation transformer 340, line protection 343, and POTS separation HPF 345 (see col. 3, lines 11-28). The Office Action asserts that diplexer 330 is a duplexer that converts differential inputs into single ended signals and single ended inputs into differential signals. Applicants respectfully submit that diplexer 330 is not a duplexer as asserted in the Office Action. Swisher describes diplexer 330 as performing "upstream and downstream frequency separation" and thus is not a converter which takes a single ended single and converts it to a differential signal and vice-a-versa. In contrast, claim 59 recites "a converter configured to convert a differential input signal from a twisted pair telephone line to a single-ended input signal for the receive channel, and convert a single-ended output signal from the transmit channel to a differential output." Swisher does not teach or suggest such a converter. Therefore, Swisher does not teach each and every element of claim 59. Accordingly, Applicants respectfully submit that independent claim 59 is patentable over Swisher for at least these reasons. Furthermore, Applicants submit that independent claims 77 and 94 are also patentable over Swisher for at least the reasons given for claim 59. Claim 66 that depends on claim 59 and claim 83 that depends on claim 77 are also patentable over Swisher for least the reasons provided above, and further in view of their own features. Thus Applicants respectfully request that the rejection of claims 59, 66, 77, 83, and 94 be reconsidered and withdrawn.

Rejections under 35 U.S.C. § 103

On Page 4 of the Office Action, claims 67-69, 84-86, and 95-100 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Swisher, as applied to claims 66, 83, and 94 above, in view of U.S. Patent No. 6,621,346 to Nabicht et al. (hereinafter

Nabicht). Claims 67-69 depend on claim 59, claims 84-86 depend on claim 77, and claims 95-100 depend on claim 94, and thus are patentable over Swisher for at least the reasons provided above for claims 59, 77, and 94. The disclosure of Nabicht does not overcome the deficiencies of Swisher. Claims 67-69, 84-86, and 95-100 are therefore patentable over Swisher and Nabicht, alone or in any rational combination, for at least the same reasons as claims 59, 77, and 94 and further in view of their own features. Accordingly, Applicants request that this rejection be reconsidered and withdrawn, and that claims 67-69, 84-86, and 95-100 be passed to allowance.

On Page 5 of the Office Action, claims 70-71 and 87-88 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Swisher and Nabicht as applied to claims 69 and 86 above, in view of U.S. Patent No. 4,178,482 to Ouellette (hereinafter Ouellette). Claims 70-71 depend on claim 59 and claims 87-88 depend on claim 77 and thus are patentable over Swisher and Nabicht for at least the reasons provided above for claims 69 and 86 above. The disclosure of Ouellette does not overcome the deficiencies of Swisher or Nabicht. Claims 70-71 and 87-88 are therefore patentable over Swisher, Nabicht, and Ouellette, alone or in any rational combination, for at least the same reasons as claims 69 and 86 and further in view of their own features. Accordingly, Applicants request that this rejection be reconsidered and withdrawn, and that claims 70-71 and 87-88 be passed to allowance.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Robert Sokohl
Attorney for Applicants
Registration No. 36,013

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1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600
570293v1